



INSTITUTION OF MECHANICAL ENGINEERS CENTRAL CANADA BRANCH

A lecture by Dr Uri Sagman MD

DATE: Tuesday 21 September 2004

TIME: 6:15 pm - Reception and hors d'oeuvres
7:00 pm - Lecture

WHERE: Toronto Board of Trade, 830 Dixon Road, Etobicoke

DIRECTIONS: The Board of Trade, Airport Club is located on the east side of Dixon Road, approximately 1 km north of Highway 401. From Highway 401, exit Dixon Road west until you see 830 Dixon Road. Turn right into the Club parking lot. See map on reverse for further information.

TALK INFORMATION: The Commercial Potential of Nanotechnology

While many definitions of nanotechnology exist, the one most widely used is from the US Government's National Nanotechnology Initiative (NNI). According to the NNI, nanotechnology is defined as: "Research and technology development at the atomic, molecular and macromolecular levels in the lengthscale of approximately 1 - 100 nanometer range, to provide a fundamental understanding of phenomena and materials at the nanoscale and to create and use structures, devices and systems that have novel properties and functions because of their small and/or intermediate size." More simply put, nanotechnology is the space at the nanoscale (i.e. one billionth of a meter), which is smaller than "micro" (one millionth of a meter) and larger than "pico" (one trillionth of a meter). And while nano can be thought of as the continued miniaturization beyond micro, it provides a new generation of enabling technologies.

From a perspective of commercialization, nanotechnology or "Small Tech" is not an industry in itself, but rather a series of enabling technologies that can improve end-products and services in many mainstream industries. The biggest opportunities for nanotechnology are expected to be in medical, aerospace and defence, automotive, information and communication technologies, energy, and chemicals sectors. These six industries make up \$3 trillion of spending or nearly 30% of the US Gross Domestic Product. With the potential to dramatically change many technological-based industries, nanotechnology is being funded at unprecedented levels by most industrialized countries to develop new revolutionary materials, devices and paradigms in key industrial sectors. This presentation will provide an overview of nanotechnology and describe some of the underlying concepts, applications, trends and economic potential.

SPEAKER Dr. Sagman is the co-founder and Executive Director of the Canadian NanoBusiness Alliance, an association dedicated to the promotion of the nanotechnology sector in Canada. The Canadian NanoBusiness Alliance has a diverse membership, which includes representation of government agencies, academic centers of excellence, industry and the investment community. Dr. Sagman is cofounder and President of C Sixty Inc. At C Sixty, Dr. Sagman has recruited some of the world's leading scientists, including the 1996 Nobel Prize awardee and co-discoverer of fullerenes, to advance the development of fullerene-based technology for biomedical applications. To that end, Dr. Sagman has enlisted a comprehensive R&D network, based at leading academic centers, which include Rice University, UCLA, Columbia University, Dartmouth, the University of Toronto, Erlangen University in Germany, and the University of Taiwan. Dr. Sagman is the Chairman of GRN Health International Inc., a globally based academic research organization dedicated to medical research and development. Dr. Sagman is a medical oncologist, a fellow of the Royal College of Physicians and Surgeons of Canada, and a fellowship recipient of the Medical Research Council of Canada. He is a recognized researcher in the field of clinical oncology, tumor biology and immunology. Dr. Sagman obtained his training at McGill University, The University of Calgary, The University of Toronto and Oxford University. Dr. Sagman is the recipient of numerous awards and citations including the Young Investigator awards of the American Society of Clinical Oncology (ASCO) and the American Association for Cancer Research (AACR). He has organized and participated as keynote speaker at numerous nanotechnology-based conferences. Dr. Sagman has been extensively profiled in numerous journal and press publications, including Time Magazine, Newsweek, the Economist, the New York Times, Red Herring, Technology Review, Chemical Engineering, the National Post, the Houston Chronicle, and The Toronto Star amongst others.

BOOKING CONTACT DEADLINE Please call or send an e-mail to book for the event indicating the number of attendees.
Peter Mulcaster: 905-316-2307 e-mail: imechec@attglobal.net
12:00 noon Wednesday 15 September, 2004
Checkout our website at <http://www.imeche-ccb.org>

